



U.S. DEPARTMENT OF  
**ENERGY**

# **Introduction to Tc/I in Hanford Flowsheet**

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# Recycle Options

- Continuous recycle of the SBS/WESP bottoms from LAW vitrification are assumed in baseline
  - could consider purges and breaking of the recycle loop (e.g., off-gas scrub sent to secondary waste treatment, portions diverted to HLW vitrification facility, or supplemental LAW treatment)
- WTP mass balance assumes no recycle from supplemental treatment
  - many estimates have been made on the impacts of scrub solution recycle if supplemental treatment was assumed to be a second LAW vitrification facility
  - have impacts on water management.



# Talk Agenda

1. Inventory and partition factors for Tc, I, and H<sub>2</sub>O
  - With and without SBS/WESP recycle
2. WTP melter/off-gas partition factors for Tc, Re, and I
3. Impacts of waste compositions and recycle on LAW glass amount
4. Hanford secondary waste streams and waste forms
5. FBSR process and waste form for Hanford LAW
6. Recap and conclusions
7. Discussion with EM TEG
8. Action items and wrap-up



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